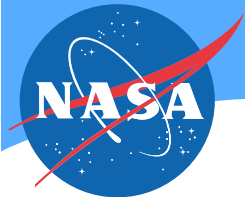# Global Data Assembly Center (GDAC) Report to the GHRSST Science Team

Edward Armstrong, Jorge Vazquez, Wen-Hao Li, Chris Finch

Physical Oceanography DAAC (PO.DAAC)

20th GHRSST Science Team Meeting

Frascati, Italy

3 June 2019

National Aeronautics and
Space Administration

Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California

2018-2019 Highlights

* Several new and improved datasets ingested in last 12 months
    * VIIRS and GOES-16
    * Recent Saildrone and in situ datasets
* Continued support operational datastreams from 14 RDACs
* Maintain linkages to NASA CMR and LTSRF archive
    * See https://search.earthdata.nasa.gov/search
* Continued user uptake
    * Several GHRSST datasets in PO.DAAC top 10
* User community engagement
    * FTP retirement
* Supporting Regional Global Task Sharing (R/G TS) architecture formal proposal and ongoing work
* Improved Tools and Services, and Discovery
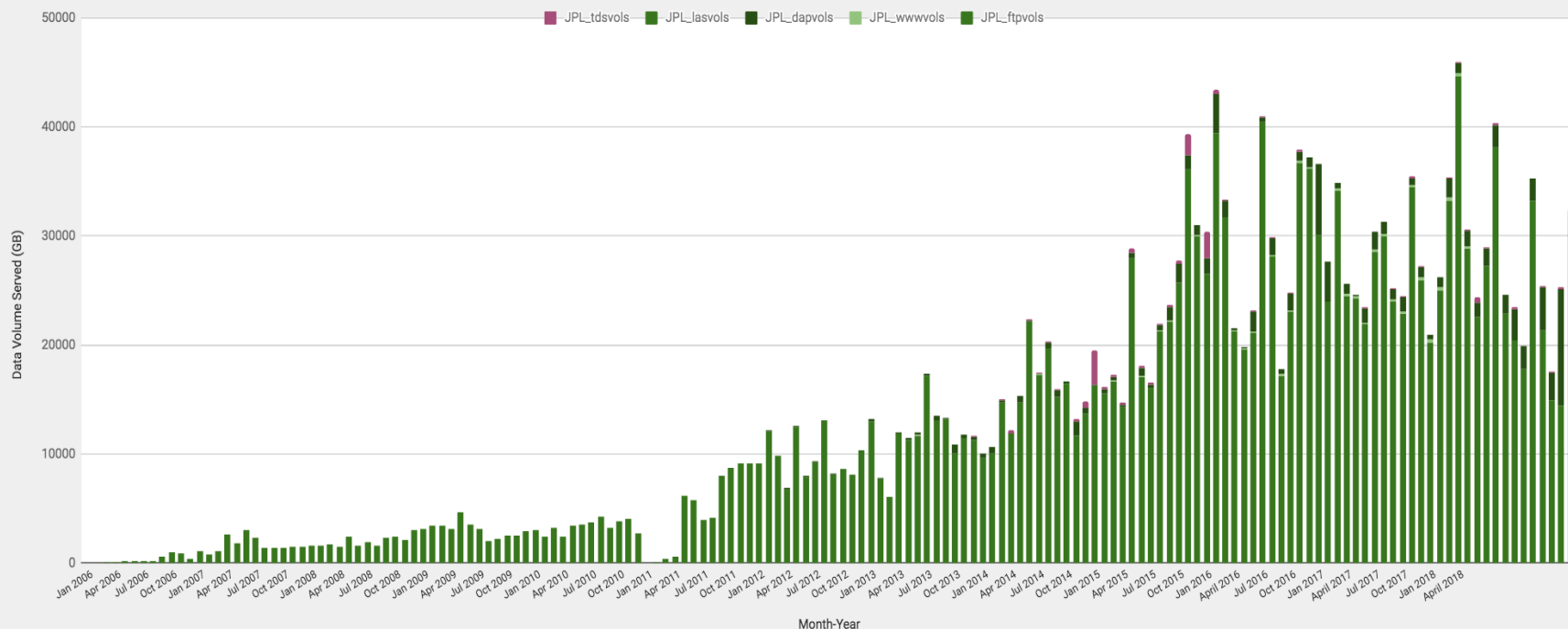
PO.DAAC Distribution metrics: Monthly Unique Users
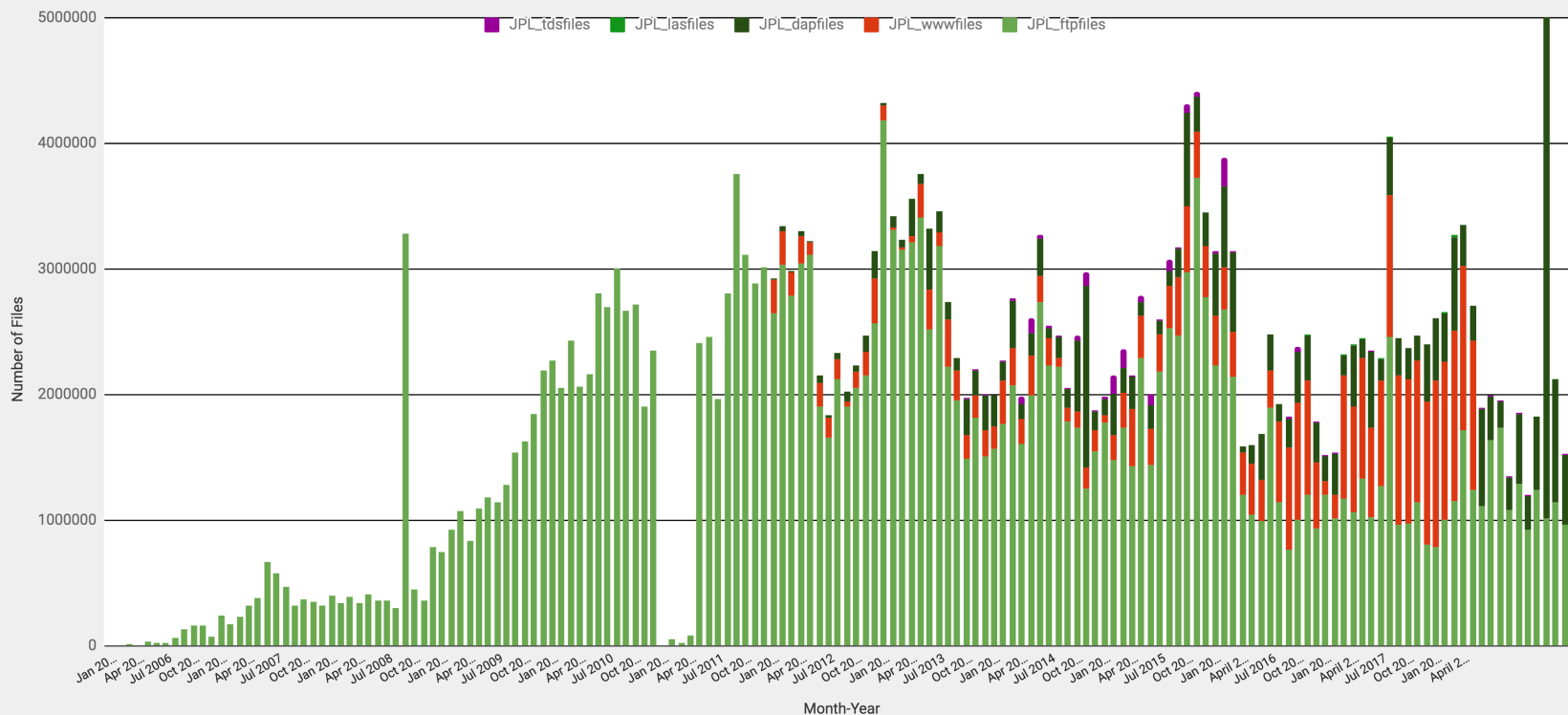

GHRSST: Unique Hosts Served by JPL
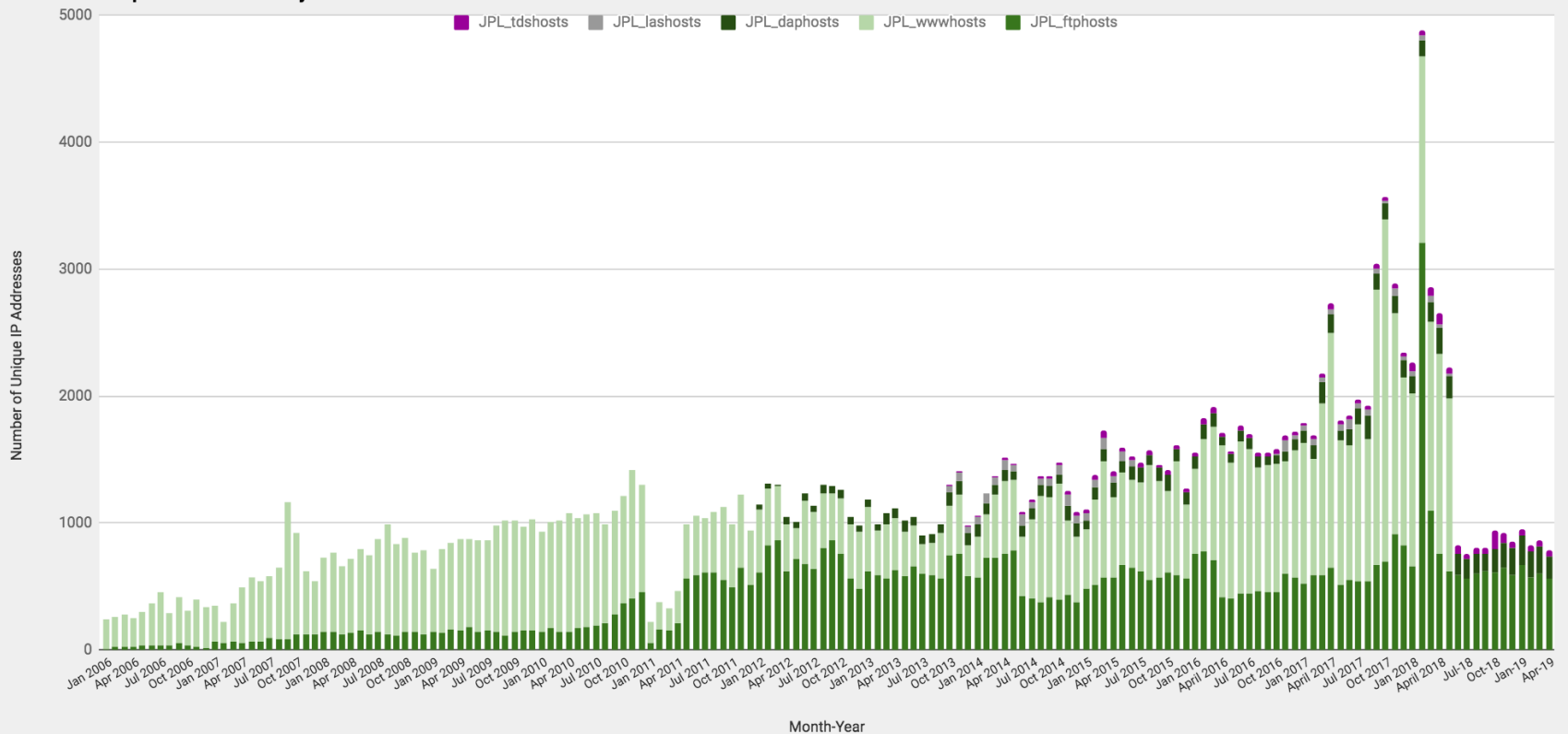
Monthly Volumes

GHRSST: Data Volumes Served at JPL

Monthly Files

GHRSST: Number of files served by JPL

PO.DAAC top 10

Rank	Name	To
1	PODAAC-GMSLM-TJ142	FTP
	Global Mean Sea Level Trend from Integrated Multi-Mission Ocean Altimeters TOPEX/Poseidon Jason-1 and OSTM/Jason-2 Version 4.2	
2	PODAAC-TEMSC-ANTS1	FTP
	Antarctica Mass Variability Time Series Version 1 from JPL GRACE Mascon CRI Filtered	
3	PODAAC-OSCAR-03D01	FTP
	OSCAR third degree resolution ocean surface currents	
4	PODAAC-GHOST-4FK01	FTP
	GHRSST Level 4 OSTIA Global Foundation Sea Surface Temperature Analysis	
5	PODAAC-TEMSC-GRTS1	FTP
	Greenland Mass Variability Time Series Version 1 from JPL GRACE Mascon CRI Filtered	
6	PODAAC-GHGMR-4FJ01	FTP
	GHRSST Level 4 MUR Global Foundation Sea Surface Temperature Analysis	
7	PODAAC-GHG1S-4FP01	FTP
	GHRSST Level 4 G1SST Global Foundation Sea Surface Temperature Analysis	
8	PODAAC-GHGMR-4FJ04	FTP
	GHRSST Level 4 MUR Global Foundation Sea Surface Temperature Analysis (v4.1)	
9	PODAAC-GOSTA-HDF01	FTP
	Global Ocean Surface Temperature Atlas Plus (MIT,UKMO,JPL)	
10	PODAAC-J2ODR-GPS00	FTP
	OSTM GPS based orbit and SSHA OGDR	

Top 10 Datasets for FTP by files during 2019

Rank	Name	Tool	Files	Volume (GB)	Users
1	PODAAC-GHVRS-3UO26	FTP	1021795	3153.80	21
	GHRSST GDS2 Level 3U Global Skin Sea Surface Temperature version 2.60 from the Visible Infrared Imaging Radiometer Suite (VIIRS) on the Suomi NPP satellite created by the NOAA Advanced Clear-Sky Processor for Ocean (ACSPO)				
2	PODAAC-GHVRS-2PN30	FTP	425486	6675.61	18
	GHRSST Level 2P 1 m Depth Global Sea Surface Temperature version 3.0 from the Visible Infrared Imaging Radiometer Suite (VIIRS) on the Suomi NPP satellite (GDS2)				
3	PODAAC-J1GPN-NC00E	FTP	388493	1619.65	46
	Jason-1 GDR version E NetCDF				
4	PODAAC-GHIAS-2PO02	FTP	355220	43.15	6
	GHRSST Level 2P Global skin Sea Surface Temperature from the Infrared Atmospheric Sounding Interferometer (IASI) on the Metop-B satellite (GDS V2) produced by OSI SAF				
5	PODAAC-GHMDA-2PJ02	FTP	331256	5332.80	88
	GHRSST Level 2P Global Skin Sea Surface Temperature from the Moderate Resolution Imaging Spectroradiometer (MODIS) on the NASA Aqua satellite				
6	PODAAC-ASOP2-25X01	FTP	305650	140.86	121
	MetOp-A ASCAT Level 2 25.0 km Ocean Surface Wind Vectors				
7	PODAAC-QSF12-L2B01	FTP	295881	3566.63	164
	QuikSCAT Level 2B Ocean Wind Vectors in 12.5km Slice Composites Version 3 (Uncompressed)				
8	PODAAC-GHGMR-4FJ01	FTP	246371	141.47	378
	GHRSST Level 4 MUR Global Foundation Sea Surface Temperature Analysis				
9	PODAAC-GHAMB-2PO02	FTP	246148	784.27	16
	GHRSST Level 2P sub-skin Sea Surface Temperature from the Advanced Very High Resolution Radiometer (AVHRR) on Metop satellites (currently Metop-B) (GDS V2) produced by OSI SAF				
10	PODAAC-GHAM2-2PR8A	FTP	245653	1088.61	31
	GHRSST Level 2P Global Subskin Sea Surface Temperature version 8a from				

New datasets released

* VIIRS SST

  * L2P/L3U v2.61 on NPP and NOAA-20 from NOAA ACSPO

  * Level-2P SST v3.0 on NPP from NAVO

* GOES-16

  * ABI SST L2P/L3C v2.70 from NOAA ACSPO

* Level-4 K10-SST v1.0 from NAVO

Tools, Services and Discovery

* PO.DAAC Earthdata Drive
  * FTP replacement
* State Of The Ocean (SOTO) version 5
  * Analytics capability from Oceanworks (NEXUS)
  * Includes MUR L4 and MODIS L2
* HiTIDE
  * GUI based L2 subsetting
* OPeNDAP, THREDDS, LAS, Webification-sci, MCC
* Improved discovery
  * PO.DAAC dataset landing page markups using schema.org
* See poster by Wen-Hao Li

In Situ Datasets

* Saildrone
  * 2018 Alta California/Baja California cruise
  * Ongoing Arctic cruises
  * https://podaac.jpl.nasa.gov/saildrone
* SPURS-2 datasets
  * Eastern Tropical Pacific
  * 7 initial datasets with more to come (28 total)
    * CTD, XBT, ARGO, ADCP, WAMOS, SEA-POL
    * https://podaac.jpl.nasa.gov/spurs
* Future infusion strategies for accessing and visualizing global in situ data
* See posters by Armstrong et al., and Vazquez-Cuervo et al.